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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Carl A. Reiser

Docket No.: C-3363

Serial No.: 10/765,737

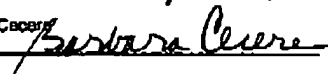
Art Unit: 1795

Filed: January 27, 2004

Examiner: O'Neill, Karie Amber

Title: Preventing Fuel Starvation
of a Fuel Cell StackI hereby certify that this correspondence is being facsimile
transmitted to the United States Patent and Trademark Office
(Fax No. 571-273-8300) on April 22, 2009.

Barbara Cecere

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450**REPLY BRIEF**

Note that the section numbering follows that of the new format of 37 CFR
41.37 in which section 6 is reserved; similarly, section 3 herein.

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(2) **TABLE OF AUTHORITIES**

No authorities are cited herein.

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(4) STATEMENT OF ADDITIONAL FACTS

The Examiner admits, on page 6, lines 12 and 13 {6:12,13} of the Examiner's Answer, that *"deVaal et al does not disclose disconnecting the electrical load from the fuel cell in the event that there is no flow of gas from the flow fields toward ambient."* [Emphasis in original]

The Examiner states {20:18-20}: ...*"the limitation 'in the event there is no gas flow' has been rejected not only as a 102(e) rejection but also as a proper 103(a) rejection."* This was justified {20:17,18} by the maxim: *"...product claims do not require the use of the product to anticipate the claim."* The Examiner thus established the fact that no consideration was given to a significant limitation in the claims, contrary to "claimed invention as a whole".

The Examiner states that Reiser's declaration was "refuted" {11:11-14; 15:5-7; 17:13,14} because it does not provide any facts and was unsupported. On the contrary, paragraphs 4-9 of Reiser's declaration merely point, by column and line and by figure and numeral, to the reference (deVaal) itself. Those citations also show that Reiser's familiarity with the reference is sufficient to support his conclusions in paragraphs 10-12.

Reiser establishes as unrefuted fact that deVaal monitors hydrogen concentration in air {¶ 5}, that deVaal does not measure any flow {¶ 11}, and that deVaal does not monitor hydrogen unadulterated by air {¶ 12}.

(5) ARGUMENT

If Reiser was wrong about any points he made, the Examiner could have cited the evidence of Reiser's error to refute some or all of Reiser's declaration, (such as by citing column and line where deVaal describes **measuring a flow**). The Examiner did not **refute** any fact in Reiser by showing that Reiser is wrong. How could Reiser cite where deVaal does not disclose monitoring flow of H2 exhaust to ambient? An unrefuted declaration based on the ultimate document (deVaal) is entitled to great weight.

The Examiner erred {6:18-20} by alleging that the prior art teaches "*a low flow will damage a fuel cell load...*" However, deVaal teaches shut down (or stop) **only** (a) if fuel cell temperature is excessive {14:23-27}, if (b) ambient temperature is (i) below a limit {14:37-41} or (ii) above a limit {14:41-47}, or (c) if there is "*low oxygen concentration or high hydrogen concentration*" {14:48-51}.

In three places, the Examiner refers to "low gas flow" {4:7-10; 10:14-21; 21:6-8}, and, in five places to "low gas concentration" {6:9-11;

10:7-9; 10:14-21; 20:20-21; 21:1}, each time (except the last) citing column 14, lines 48-51 of deVaal. In that citation, the shut down is in response to either ***"a low oxygen concentration or a high hydrogen concentration"*** {deVaal 14:48-51}.

The Examiner refers {22:12-14} to fuel flow through the fuel cell and "sensors for monitoring fuel (Figure 3)." The only fuel sensors in Figure 3 are S11, which is part of S5 {deVaal 7:49-53}, hydrogen concentration sensor S5, hydrogen heater current sensor S6 {deVaal 7:44-46}, and fuel pressure sensor 62 {deVaal 7:56-59}. (S1 is fuel cell temperature, S2 is current, S3 is stack voltage, S4 is purge cells voltage, S7 is oxygen concentration, S8 is air mass flow, S9 is cell voltage, and S10 is ambient air temperature.)

The Examiner twice quotes the rejection appealed from as if it were proof {12:16-13:20; 19:11-16}. The Examiner makes wholly unsupported allegations of fact in at least four places {12:15, 16; 19:17; 21:16-18; 22:6-9}.

The Examiner equates "concentration" to "flow" in five places {6:6-9; 12:15,16; 14:20-22; 15:16,17; 17:20,21; 22:10-11; 22: 19-21}, without any viable support therefore.

The Examiner alleges {12:13-15} that applicant's arguments set forth at {12:8,9} are not persuasive and that converting "concentration" to


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"flow" was not arbitrary. To prove that allegation, the Examiner then quotes {12:6 - 3:20} {Final Rejection, 8:1 - 9:20}, concluding that deVaal discloses "*fuel flowing through the flow fields...to ambient.*" {13:18-20} But the Examiner does not allege where deVaal measures the flow of fuel exiting the purge valve {Fig. 3:70} into the cooling air path {11:25-40}. Fuel flows, but deVaal does NOT measure it!

Measuring H2 concentration in ambient air is not measuring H2 flow, as H2 flows into the ambient air. Thus, deVaal does not disclose "sensing the direction of flow" {claim 1:9; claim 2:8; claim 4:9; claim 5:8}. The Examiner admits {6:12,13} that deVaal "does not disclose disconnecting the electrical load...in the event there is no flow" {claim 1:11,12; claim 2:10,11; claim 4:10,11; claim 5:10,11}.

Respectfully submitted,


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